Bethel Heat Recovery Assessment & Conceptual Design **FY2016 Request: $645,613**
Reference No: 60787

AP/AL: Allocation
Project Type: Energy
Category: Development
Location: Bethel
House District: Lower Kuskokwim (HD 38)
Impact House District: Lower Kuskokwim (HD 38)
Contact: Sara Fisher-Goad
Estimated Project Dates: 07/01/2015 - 06/30/2020
Contact Phone: (907)771-3000
Appropriation: Alaska Energy Authority - Round VIII Renewable Energy Project Grants (AS 42.45.045)

Brief Summary and Statement of Need:
The Alaska Village Electric Cooperative proposes to complete a detailed assessment of the existing 40 year old heat recovery system and prepare a conceptual design report of essential upgrades to the existing system and potential new recovered heat connections. The project would also consider additional heat capture using exhaust gas heat exchangers. Assessment of the existing system would include installation of BTU meters and inline ultrasonic inspection of the 10” pipeline mains. Heat is recovered from the powerhouse’s six 2.2 MW EMD 16-645 E4D generators. The application is based on a reconnaissance study completed by Coffman Engineers in 2014.

Funding:	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Renew Ener	$645,613						$645,613
Total:	$645,613	$0	$0	$0	$0	$0	$645,613

☐ State Match Required ☑ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

Recommendations in the report include ultrasonic inspection, consideration of a list of potential future users of recovered heat, and evaluation of the installation of exhaust gas heat exchangers for system evaluation.